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The purpose of the study was to determine whether higher shorthand speeds were achieved by high school students in a 1-year shorthand course through the use of Simplified Gregg Shorthand or through the use of Diamond Jubilee (DJ) Gregg Shorthand. The control group consisted of 75 students enrolled in Simplified Shorthand during the years 1957-1963, and the experimental group consisted of 45 students enrolled in DJ Shorthand during the years 1963-64 and 1964-65. A statistical test of differences in IQ., freshman and sophomore grade averages, and freshman and sophomore grade averages, and freshman and sophomore English grade averages indicated that the Simplified Shorthand group was a significantly (.05 level) more capable group than the DJ group in the three areas measured. Gregg Awards Tests (60 words a minute for 5 minutes) were administered to each group each month from January through May. The percentage of students who qualified with an accuracy of 95 percent or better was determined. The DJ group showed a higher cumulative percentage of achievement throughout the entire testing period. However, the difference was significant at the .05 level for the month of March only. It was concluded that an inferior group using DJ Shorthand will perform as well as a superior group using Simplified Shorthand. (PS)

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COLORADO WESTERN STATES SMALL SCHOOLS PROJECT

DOCUMENTATION

AN INVESTIGATION TO DETERMINE IF HIGHER SPEEDS ARE OBTAINED WITH THE DIAMOND JUBILEE GREGG SHORTHAND METHOD

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1964 - 65

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THE WESTERN STATES SMALL SCHOOLS PROJECT

The Western States Small Schools Project, partly financed by a grant from the Ford Foundation, is designed to help the state education agencies in Colorado, Arizona, Nevada, New Mexico, and Utah in their efforts to improve instruction in the necessarily existent small schools. The Project began January, 1961 and will end August, 1965. Policy board of the Project is composed of the chief state school officers of the cooperating states. Ralph G. Bohrson, Coordinator of the WSSSP, is headquartered in Denver, at the Colorado State Department of Education.

The Colorado portion of the Project, involving more than two hundred teachers and administrators in approximately thirty schools has been working in the following areas:

- Ungraded or Continuous Progress Programs
- Use of Self-Instructional Materials
- Teacher Education and In-Service Programs
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AN INVESTIGATION TO DETERMINE IF HIGHER SPEEDS ARE OBTAINED WITH THE DIAMOND JUBILEE GREGG SHORTHAND METHOD

This was a study to determine whether higher shorthand speeds are achieved by the students in the one-year shorthand course at Meeker High School through the use of Simplified Gregg Shorthand or through the use of Diamond Jubilee Gregg Shorthand.

The investigation was concerned with the following questions:

1. What per cent of the Meeker High School one-year Simplified Gregg Shorthand students of the years 1957-63 qualified on the 60 words a minute, five-minute Gregg Awards Tests with an accuracy of at least 95 per cent?

2. How early in the year did these students qualify?

3. What per cent of the Meeker High School one-year Diamond Jubilee Gregg Shorthand students of the years 1963-64 and 1964-65 qualified on the 60 words a minute, five-minute Gregg Awards Tests with an accuracy of at least 95 per cent?

4. How early in the year did these students qualify?

The investigation was conducted as follows: The Control Group was taught Simplified Shorthand and given the Gregg Awards Test each month from January through May. These tests were checked, and the names of those students whose papers qualified with an accuracy of 95 per cent or better were recorded. The Experimental Group was taught Diamond Jubilee Shorthand and given the Gregg Awards Test each month from January through May. These tests were checked, and the names of those students whose papers qualified with an accuracy of 95 per cent or better were also recorded. From this data, the per cent of students qualifying with Simplified Shorthand and the per cent of students qualifying with Diamond Jubilee Shorthand was determined.

It was assumed that the only difference between the control situation and the experimental situation was the revision of the shorthand system. The similarity of the learning situations was established by delineating the likenesses:

1. Same school: Meeker High School
2. Same teacher: Ethel Stone Starbuck
3. Same classroom: Room 112
4. Same class period: 35-minute class; 20-minute study
5. Same testing program: Gregg Awards Testing Program

The degree of similarity between the students of the Control Group and the students of the Experimental Group was established by determining the mean, the median, and the standard deviation of the Control Group and the Experimental Group in relation to the I.Q., Freshman and Sophomore Grade Average, and Freshman and Sophomore English Grade Average. The data thus collected were tested by applying the null hypothesis. The .05 level of confidence was established at 1.98, with 118 degrees of freedom.

A statistical summary of the data collected revealed the following facts about the Lorge-Thorndike Intelligence Quotients of the Simplified Gregg Shorthand Control Group: the mean was found to be 110.28; the median, 112.00; and the standard deviation, 11.92. The Diamond Jubilee Gregg Shorthand Experimental Group was found to have a mean of 107.73, a median of 106.00, and a standard deviation of 10.62. Table 1, which follows, shows the difference, the standard error of the difference of the statistics, the critical ratio, and the significance of the difference between the two groups.

TABLE 1

COMPARISON OF LORGE-THORNDIKE INTELLIGENCE QUOTIENTS OF SIMPLIFIED SHORTHAND STUDENTS AND DIAMOND JUBILEE SHORTHAND STUDENTS

Measure	Simplified Shorthand (N = 75)	DJS (N = 45)	Difference	Standard Error of Difference	Critical Ratio	Significance of Difference
Mean	110.28	107.73	2.55	.28	8.98	Significant
Median	112.00	106.00	6.00	2.63	2.28	Significant
Standard Deviation	11.92	10.62	1.30	1.49	.87	Not Significant

The critical ratios of the mean and of the median are clearly significant at the .05 level of confidence. Therefore, it was determined that the Diamond Jubilee Shorthand Group was significantly lower than the Simplified Shorthand Group, as measured by the Lorge-Thorndike Intelligence Tests.

The data relative to the Freshman and Sophomore Grade Averages* of the Simplified Gregg Shorthand Control Group were found to be as follows: mean, 2.83; median, 2.83; and standard deviation, .62. The Freshman and Sophomore Grade Averages of the Diamond Jubilee Gregg Shorthand Experimental Group showed a mean of 2.60, a median of 2.45, and a standard deviation of .70. Table 2 shows a statistical comparison of the two groups.

TABLE 2

COMPARISON OF FRESHMAN AND SOPHOMORE GRADE AVERAGES OF SIMPLIFIED SHORTHAND STUDENTS AND DIAMOND JUBILEE SHORTHAND STUDENTS

Measure	Simplified Shorthand (N = 75)	DJS (N = 45)	Difference	Standard Error of Difference	Critical Ratio	Significance of Difference
Mean	2.83	2.60	.23	.02	13.24	Significant
Median	2.83	2.45	.38	.16	2.42	Significant
Standard Deviation	.62	.70	.08	.09	.89	Not Significant

Here, too, the critical ratios of the mean and of the median are clearly significant at the .05 level. Therefore, it was evident that the Diamond Jubilee Shorthand Group was significantly lower than the Simplified Shorthand Group, as measured by their Freshman and Sophomore Grade Averages.

*The numerical equivalents of the grading scale were: 4, an "A"; 3, a "B"; 2, a "C"; and 1, a "D."

The Freshman and Sophomore English Grade Averages of the Simplified Gregg Shorthand Control Group showed a mean of 2.92, a median of 3.00, and a standard deviation of .76. The Diamond Jubilee Group had a mean of 2.55, a median of 2.33, and a standard deviation of .86. Table 3 presents the statistical comparison of the English Grade Averages of the two groups.

TABLE 3

COMPARISON OF FRESHMAN AND SOPHOMORE ENGLISH GRADE AVERAGES OF SIMPLIFIED SHORTHAND STUDENTS AND DIAMOND JUBILEE SHORTHAND STUDENTS

Measure	Simplified Shorthand (N = 75)	DJS (N = 45)	Difference	Standard Error of Difference	Critical Ratio	Significance of Difference
Mean	2.92	2.55	.37	.02	16.87	Significant
Median	3.00	2.33	.67	.20	3.42	Significant
Standard Deviation	.76	.86	.10	.13	.79	Not Significant

Again, the critical ratios of the mean and of the median are clearly significant at the .05 level. Therefore, it was evident that the Diamond Jubilee Shorthand Group was significantly lower than the Simplified Shorthand Group, as measured by their Freshman and Sophomore English Grade Averages.

Since there were 75 shorthand students included in the Control Group and 45 shorthand students included in the Experimental Group, the number of students in each group qualifying at a speed of 60 wam was expressed in terms of the per cent of those who qualified in each group.

Table 4 presents the percentage comparisons in a cumulative form.

TABLE 4

CUMULATIVE COMPARISON OF SHORTHAND ACHIEVEMENT OF STUDENTS OF SIMPLIFIED SHORTHAND WITH STUDENTS OF DIAMOND JUBILEE SHORTHAND

Month	Cumulative % Qualified by Month Stated Using Simplified (N = 75)	Cumulative % Qualified by Month Stated Using DJS (N = 45)	Difference	Standard Error of Difference	Critical Ratio	Significance of Difference
January	2.67	11.11	8.44	5.04	1.68	Not Significant
February	9.33	17.78	8.45	6.60	1.28	Not Significant
March	14.67	33.33	18.66	8.25	2.26	Significant
April	32.00	42.22	10.22	9.12	1.12	Not Significant
May	49.33	62.22	12.89	9.24	1.39	Not Significant

The Diamond Jubilee Experimental Group showed a higher cumulative percentage of achievement throughout the entire testing period. The difference was statistically significant, however, only by the end of March, at which time the critical ratio was clearly significant at the .05 level.

The following measurements of the two groups were found to be of special significance:

The Experimental Group, which studied Diamond Jubilee Gregg Shorthand, was a significantly less capable group than the Control Group, which studied Simplified Gregg Shorthand, in the areas which show a positive group correlation with shorthand success; namely, general intelligence, grade average, and English grade average.

The following conclusion was, therefore, reached by the investigator:

Since the less gifted Diamond Jubilee Shorthand Group performed as well as the more gifted Simplified Shorthand Group, it may be concluded that an inferior group using Diamond Jubilee Shorthand will perform as well as a superior group using Simplified Shorthand. The groups referred to, in this instance, would be restricted to average junior and senior high school level students.

The observations of the writer would suggest the following hypotheses for further investigation:

1. The learning load of Simplified Gregg Shorthand has been effectively reduced in the Diamond Jubilee Shorthand Revision.

2. Because of this reduced learning load, the theory can be mastered in shorter time. For this reason, new-matter dictation can be given much earlier in the year and successfully taken and transcribed by the student.

3. More students can expect to achieve a useful shorthand skill in a shorter time. Many of the more apt students can gain a useful shorthand skill in less than a year. It is still not indicated, however, that the below-average student should be encouraged to enroll in shorthand with the anticipation of achieving a usable skill in one year.

4. It may reasonably be proposed that groups of similar ability will perform better with Diamond Jubilee Shorthand than with Simplified Shorthand the first year.